

the study compared results across three types of health plans, namely, indemnity, HMO, and PPO.

METHODS: A survey instrument was administered to 2,000 patients randomly identified from a pharmacy claims database. The survey instrument included the SF-12 scale and questions measuring patient satisfaction with pharmacy benefit services. Patient satisfaction was measured using a seven-point, eight-item scale, where 7 = extremely satisfied and 1 = extremely dissatisfied. Demographic variables such as age, gender, SSRI drug taken, and type of health plan were obtained from the claims database.

RESULTS: Preliminary data of 327 completed surveys were coded and analyzed using statistical tests. A multivariate analysis of variance test indicated no significant effect of SSRI drug taken or the type of health plan enrolled on variables measured ($p > 0.05$). There was also no significant association between scores of the SF-12 scale (both the physical and mental component) and patient satisfaction with pharmacy benefits. In general, patients were very satisfied (5.83 ± 0.74) with the pharmacy/prescription benefits, and they indicated their health status to be very good (3.45 ± 0.92). The physical and mental component of the SF-12 scores were comparable to those of the national average, 52.68 ± 11.99 and 52.38 ± 18.66 , respectively.

CONCLUSIONS: The results of this study indicate that consumers are very satisfied with the services offered by the pharmacy/prescription benefit.

PMH4

QUALITY OF LIFE AND ADVERSE REACTIONS IN DEPRESSED PATIENTS RECEIVING ANTIDEPRESSANT DRUGS

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OBJECTIVE: The purpose of this ongoing prospective study was to document the quality of life and adverse reactions reported by ambulatory patients receiving pharmaceutical care from the Community Pharmacist Research Network.

METHODS: Pharmacists collected demographic and prescription data, and verified that each patient was treated for depression for at least three months and received no other medications. Patients completed the SF-36 questionnaire and a symptoms checklist.

RESULTS: Thirty-one white patients, 20 females and 11 males, completed study instruments. Twenty-seven patients were receiving selective serotonin reuptake inhibitors (SSRIs), including fluoxetine (13), paroxetine (8), and sertraline (6); four patients were receiving non-SSRIs. The mean age of patients receiving SSRIs was 45 years, and patients receiving non-SSRIs was 41 years. Twenty-three patients received antidepressants prescribed by non-psychiatrists. Mean transformed scale scores from the SF-36 were calculated for patients receiving SSRIs and non-SSRIs, respectively, as: physical functioning 87.59 vs.

72.5; role (physical) 83.33 vs. 50; bodily pain 75.88 vs. 68.3; general health 71.29 vs. 47.25; vitality 52.77 vs. 51.25; social functioning 76.92 vs. 71.87; role (emotional) 70.35 vs. 66.6; and mental health 66.96 vs. 59. Six patients reported the presence of sexual dysfunction; seven reported nervousness; seven reported diarrhea; seven reported difficulty falling asleep; eight reported changes in sexual interests; eight reported blurred vision; eight reported constipation; nine reported weight gain; nine reported drowsiness; and sixteen reported dry mouth.

CONCLUSION: Based upon these real world findings, similar studies are warranted. Although patients receiving SSRIs experienced clinically significant side effects, health-related quality of life in all SF-36 domains was better for these patients compared to patients receiving non-SSRI drugs. These findings have great relevance for the care of depressed patients.

PMH5

THE COST OF TREATING SCHIZOPHRENIA IN THE CALIFORNIA MEDICAID (MEDI-CAL) PROGRAM

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This study investigated the health care costs for schizophrenic patients while documenting the relationship between health care costs and the patient's use of antipsychotic medications.

METHODS: Paid claims data from the Medi-Cal program were used to identify schizophrenic patients with a minimum of 1 year of data available for analysis ($n = 2,680$). Patients were divided into treated and untreated populations based on their purchase of at least one prescription for an antipsychotic medication during the year. Drug use patterns for treated patients documented the extent to which patients delayed drug therapy or switches in drug therapy occurred during the first year. Multivariate logistic regression models were estimated to investigate the factors related to delays in therapy or switching therapies. OLS regression models were used to estimate the health care costs associated with these drug use patterns.

RESULTS: Direct health care cost per schizophrenic patients averaged \$24,000 per year. Nearly 21% of schizophrenic patients used no antipsychotic drug therapy for up to one year, which was not associated with increased costs. Over 27% of treated patients delayed treatment, resulting in increased costs of between \$3,262 ($p < .08$) and \$6,189 ($p \leq .01$). 41% of treated patients with no delays in therapy switched therapy within 1 year at a cost of approximately \$8,000 ($p < .01$). Only 11% of treated patients consistently purchased antipsychotic medications during the first year. However, long term use was not associated with lower costs. An intent-to-treat analysis failed to document any differences between medications.

CONCLUSIONS: Schizophrenia patients consume significant health care resources. Medications used to treat schizophrenia did not differ in terms of duration of therapy or impact on total health care costs.

PMH6

ECONOMIC OUTCOMES OF ANTIDEPRESSANT USE IN A MANAGED CARE ORGANIZATION

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Hospitals, health care systems, and policy makers are striving to seek ways to provide cost-effective care for patients with major depressive disorder.

OBJECTIVES: The first objective is to investigate the differences between the newer antidepressants regarding treatment completion, average daily dose, dosage titration, switching, and augmentation behavior. The second objective is to compare direct health service expenditures related to the treatment of depression. The inquiry is guided by the following question: Is there a significant difference between antidepressants in regard to overall health care service expenditures for the treatment of depression?

METHODS: Retrospective archival data from computerized claims records of a large managed care organization were analyzed. Treatment completion was defined as receiving at least 180 days of therapy at a minimum therapeutic dose as defined by the AHCPR guidelines for detection, diagnosis, and treatment of depression. Patients were included in the analysis if (1) they had an ICD-9 diagnosis code for depression or if (2) they received an antidepressant prescription. Patients were excluded if (1) they were less than 18 years of age, (2) they had a diagnosis indicating schizophrenia or bipolar depression, (3) there were not at least 6 months of follow up data available, or (4) they were ineligible for coverage by the plan.

RESULTS: Patients initiated on fluoxetine were more likely to complete therapy than those on paroxetine, sertraline, nefazodone, or venlafaxine ($n = 65,792$; $p < .01$). These differences narrowed over time. Results regarding overall health care utilization related to each antidepressant will be presented.

CONCLUSIONS: Based on this sample of patients, it appears that patients initiated on fluoxetine are more likely to complete therapy when compared to the other antidepressants.

PMH7

A GENERAL MODEL OF THE EFFECTS OF ALTERNATIVE SEDATIVE-HYPNOTIC AGENTS ON THE COSTS OF MOTOR VEHICLE ACCIDENTS

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While sedative-hypnotic agents may be equally effective in promoting sleep, some may lead to greater impairment in psychomotor functioning and an increased risk of motor vehicle accidents (MVAs).

OBJECTIVE: To create a general model of the impact of alternative sedative-hypnotic agents on the expected numbers and associated costs of MVAs.

METHODS: A decision-analytic model was developed to compare the effects of alternative sedative-hypnotics over one month in a hypothetical cohort of 100,000 adult drivers who were not being treated with these agents. Since insomnia increases the risk of driving drowsy, possibly leading to additional MVAs, a scenario of no treatment was included for comparison purposes. Outcomes included the expected numbers of drowsy drivers and MVAs, and the costs (societal) associated with MVAs. Model parameters were estimated using published surveys, randomized clinical trials of driving performance, and epidemiologic studies relating driving impairment to the risk of MVAs.

RESULTS: If sedative-hypnotics were not used, there would be 24,300 drowsy drivers (per 100,000 per month) and 441 MVAs. Monthly accident costs would be \$36 per person. Treatment with a sedative-hypnotic associated with limited impairment (e.g., nitrazepam 5 mg daily) would reduce the number of drowsy drivers to 17,550 but only slightly reduce MVAs (by 2) and monthly costs (by less than \$1 per patient). A medication that might severely impair driving (e.g., flurazepam 30 mg daily) would not further reduce the number of drowsy drivers but more than triple MVAs (to 1,488) and monthly costs (to \$122 per person).

CONCLUSIONS: Some sedative-hypnotic agents may markedly increase the costs of MVAs. Their acquisition prices alone therefore may provide a poor indication of overall economic impact.

PMH8

DURATION OF CONTINUOUS THERAPY BETWEEN ATYPICAL AND TYPICAL ANTIPSYCHOTICS

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Long periods of antipsychotic pharmacotherapy are often necessary because many of the psychotic conditions indicated for antipsychotics are chronic in nature. Atypical antipsychotic agents, with a broader response profile and fewer side effects, may increase the likelihood of achieving longer periods of pharmacotherapy relative to typical antipsychotic agents.

OBJECTIVE: This study compares the duration of continuous therapy between atypical and typical antipsychotics in the naturalistic care setting.

METHODS: Three years of medical claims data from a large U.S. prescription database were analyzed for 56,682